

primer having a covalently-attached donor molecule comprising a fluorophore or a fluorescent dye;

C1 (b) performing a primer extension reaction in the presence of a dideoxy nucleotide complementary to the target nucleotide, said dideoxy nucleotide having a covalently-attached acceptor molecule comprising a fluorophore or a fluorescent dye, wherein, upon incorporation of said dideoxy nucleotide into a double-stranded nucleic acid product resulting from the primer extension reaction, said acceptor molecule is proximate to said donor molecule such that said acceptor molecule is activated through fluorescent energy transfer from said donor molecule so as to produce a detectable fluorescent signal without self-quenching;

(c) determining the presence of said fluorescent signal, said presence being indicative of incorporation of said dideoxy nucleotide into the double-stranded nucleic acid product; and

(d) determining the presence of said target nucleotide as indicated by the incorporation of said dideoxy nucleotide into the double-stranded nucleic acid product.

25. (Amended) A method for determining the presence of a target nucleotide, the method comprising the steps of:

C2 (a) exposing a biological sample comprising a bodily fluid to a nucleic acid primer capable of hybridizing with a nucleic acid, said primer having a covalently-attached donor molecule comprising a fluorophore or a fluorescent dye;

(b) performing a primer extension reaction in the presence of a dideoxy nucleotide complementary to the target nucleotide, said dideoxy nucleotide having a covalently-

attached acceptor molecule comprising a fluorophore or a fluorescent dye, wherein, upon incorporation of said dideoxy nucleotide into a double-stranded nucleic acid product resulting from the primer extension reaction, said acceptor molecule is proximate to said donor molecule such that said acceptor molecule is activated through fluorescent energy transfer from said donor molecule so as to produce a detectable fluorescent signal without self-quenching;

c² (c) determining the presence of said fluorescent signal, said presence being indicative of incorporation of said dideoxy nucleotide into the double-stranded nucleic acid product; and

(d) determining the presence of said target nucleotide as indicated by the incorporation of said dideoxy nucleotide into the double-stranded nucleic acid product.

Basis for the Amendments

Claims 1 and 25 have been amended to recite a dideoxy nucleotide having an attached acceptor molecule that, upon incorporation of said dideoxy nucleotide into a double-stranded nucleic acid product resulting from the primer extension reaction, is proximate to said donor molecule such that said acceptor molecule is activated through fluorescent energy transfer from the donor molecule so as to produce a detectable fluorescent signal without self-quenching. The support for this amendment can be found throughout the specification as filed, and in particular at page 9, lines 3-5, page 11, lines 20-25; and at Figure 1, Step 3.

Attached is a marked-up copy of the amended claims, as well as a clean copy of the complete set of pending claims as amended. No new matter is introduced by those amendments.